

INTERNATIONAL SEARCH REPORT

International Classification No

PCT/BE 03/00172

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12Q1/68 C07K14/72

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12Q C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, BIOSIS, SEQUENCE SEARCH, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------------------|
| A | <p>WANG X ET AL: "Neurobeachin: A protein kinase A-anchoring, beige/Chediak-higashi protein homolog implicated in neuronal membrane traffic."</p> <p>THE JOURNAL OF NEUROSCIENCE: THE OFFICIAL JOURNAL OF THE SOCIETY FOR NEUROSCIENCE. UNITED STATES 1 DEC 2000, vol. 20, no. 23, 1 December 2000 (2000-12-01), pages 8551-8565, XP002270035 ISSN: 1529-2401 cited in the application the whole document</p> <p style="text-align: center;">--- -/--</p> | <p>1-48, 50-57, 61,62</p> |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *G* document member of the same patent family

Date of the actual completion of the international search

26 February 2004

Date of mailing of the international search report

23/03/2004

Name and mailing address of the ISA

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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/BE 05/00172

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|--|--------------------------|
| A | <p>STEELE MARGARET MARY ET AL: "Brief report: A case of autism with interstitial deletion of chromosome 13".....</p> <p>JOURNAL OF AUTISM AND DEVELOPMENTAL DISORDERS, vol. 31, no. 2, April 2001 (2001-04), pages 231-234, XP009025781 ISSN: 0162-3257 abstract</p> | 1-48, 50-57, 61,62 |
| A | <p>BRADFORD YUKI ET AL: "Incorporating language phenotypes strengthens evidence of linkage to autism"</p> <p>AMERICAN JOURNAL OF MEDICAL GENETICS, vol. 105, no. 6, 8 August 2001 (2001-08-08), pages 539-547, XP009025780 ISSN: 0148-7299 abstract</p> | 1-48, 50-57, 61,62 |
| A | <p>US 6 228 582 B1 (INGRAM JENNIFER L ET AL) 8 May 2001 (2001-05-08)</p> <p>claims 1-29</p> | 1-48, 50-57, 61,62 |
| T | <p>SMITH M ET AL: "Molecular genetic delineation of a deletion of chromosome 13q12-q13 in a patient with autism and auditory processing deficits."</p> <p>CYTOGENETIC AND GENOME RESEARCH, vol. 98, no. 4, 2002, pages 233-239, XP009025645 ISSN: 1424-8581 (ISSN print) Section "Chromosome 13 and autism" abstract</p> | 1-48, 50-57, 61,62 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/BE 03/00172

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☒ Claims Nos.: 49, 58-60
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claims 1-18 and 44-48 relate to methods for testing/screening an animal thought to have a neural system disorder or for screening for therapeutic agents which encompass a step of surgery practised on the human or animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box I.2

Claims Nos.: 49, 58-60

1) A lack of clarity arises from the wrong numbering of the claims (Article 6 PCT). Indeed, in the present set of claims, 2 claims were assigned the number 58. In the following, claims listed after the first claim with number 58 have been renumbered from 59 to 62.

2) Claim 49 relates to the use of therapeutic agents obtained by the method of claims 44 to 48. In addition, said therapeutic agents are only defined by reference to a desirable property, namely that they restore neurobeachin activity in human neural cells afflicted by a neural system disorder. These features are however not sufficient to clearly and unambiguously characterize said therapeutic agents (Article 6 PCT). Moreover, the description does not provide any additional feature that could provide a basis for a meaningful search. Consequently, no search has been carried out for claim 49.

Similarly claims 58, 59 and 60 (originally claims 58, 58 and 59, respectively), which relates to the use of therapeutic agents which are not sufficiently characterized, were not searched.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Publication No

PCT/BE 03/00172

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|----------------------------|---------------------|
| US 6228582 | B1 | 08-05-2001 | US |
| | | WO | 2002155450 A1 |
| | | | 9858082 A1 |
| | | | 24-10-2002 |
| | | | 23-12-1998 |